Abstract

The present invention relates to a method for producing patient specific anti-cancer antibodies using a novel paradigm of screening. By segregating the anti-cancer antibodies using cancer cell cytotoxicity as an end point, the process makes possible the production of anti-cancer antibodies customized for the individual patient that can be used for therapeutic and diagnostic purposes. The invention further relates to the process by which the antibodies are made and to their methods of use. The antibodies can be made specifically for one tumor derived from a particular patient and are selected on the basis of their cancer cell cytotoxicity and simultaneous lack of toxicity for non-cancerous cells. The antibodies can be used in aid of staging and diagnosis of a cancer, and can be used to treat tumor metastases. The anti-cancer antibodies can be conjugated to red blood cells obtained from that patient and re-infused for treatment of metastases based upon the recognition that metastatic cancers are usually well vascularized and the delivery of anti-cancer antibodies by red blood cells can have the effect of concentrating the antibodies at the site of the tumor.

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